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// Global Variables
unsigned int count, PWM, pulse, Option;
static volatile unsigned int TIMER1 @0x0E;
static volatile unsigned int CAPTURE1 @0x15;
// Subroutine Declarations
#include      <pic.h>
#include      "bootloader.c"
#include      "function.c"

void interrupt IntServe(void) @ 0x10
{
    if(TMR1IF){
        TIMER1=-1000;
        if(Option >= 1){
            RA1 = 1;}
        else RA1=0;
        CAPTURE1=PWM;
        TMR1IF=0;}

    if (CCP1IF == 1) {
        CCP1IF = 0;
        RA1 = 0;
    }
}

void Wait(long int X)
{
    unsigned int i;
    for (i=0; i<X; i++) {
        }
    }

// Main Routine

void main(void)
{
    unsigned char Mode;
    unsigned int Time;
    unsigned char Phase;
    unsigned int j,i;

    TRISB = 0xFF;          // RB0, RB1 are inputs
    TRISC = 0x00;          // PORTC is output
    TRISA= 0x00;
    PORTC = 0;              // turn off the LEDs
    Option = 0;

    TMR1CS=0;
    TMR1IE=1;
    TMR1ON=1;
    PEIE=1;
    CCP1CON=0x0A;
    CCP1IE=1;
    CAPTURE1 = 0;
    GIE=1;

    do {

        if ( Option >= 10) Option=0;

        if ( Option==0)
            {PORTC=0x00;
             RA1=0;
             PWM=-999;

```

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    }

    if ( Option==1)
        {PORTC=0x01;
        RA1=pulse;
        PWM=-800;
        }

    if ( Option==2)
        {PORTC=0x03;
        RA1=pulse;
        PWM=-600;
        }

    if ( Option==3){
        PORTC=0x07;
        RA1=pulse;
        PWM=-400;
    }

    if ( Option==4)
        {PORTC=0x0F;
        RA1=pulse;
        PWM=-200;
        }

    if ( Option==5)
        {PORTC=0x1F;
        RA1=pulse;
        PWM=1000;
        }

    if ( Option==6)
        {PORTC=0x0F;
        RA1=pulse;
        PWM=-200;
        }

    if ( Option==7)
        {PORTC=0x07;
        RA1=pulse;
        PWM=-400;
        }

    if ( Option==8)
        {PORTC=0x03;
        RA1=pulse;
        PWM=-600;
        }

    if ( Option==9)
        {PORTC=0x01;
        RA1=pulse;
        PWM=-800;
        }

    while(!RB0);
    Wait(1000);
    while(RB0);
    Wait(1000);
    Option += 1;
    // the program runs
    } while (1>0);
}

```